PRIVALOV, V.Ye.; KOGAN, B.Ye.; NOVIKOV, V.N.

Distillation of heavy pyridine bases. Koks i khim. no.12:46-49 '62. (MIRA 16:1)

1. Vostochnyy uglekhimicheskiy institut.
(Pyridine bases)

OSTROUKHOV, M.Ya.; PANCHENKO, S.I.; Prinimali uchastiye: FRISHBERG, V.D.;
PETROV, V.K.; RESHETKO, A.; VYATKIN, G.P.; BRATCHENKO, V.P.;
FOFANOV, A.A.; MILYAYEV, M.N.; PRIVALOV, V.Ye.; MUSTAFIN, F.A.;
PUSHKASH, I.I.; LAZAREV, B.L.

Experimental blast furnace smelting using coke from wet preparation coals. [Sbor. trud.] Nauch.-issl.inst.met. no.4:63-70 '61. (MIRA 15:11)

1. Vostochnyy uglekhimicheskiy institut (for Ostroukhov, Panchenko, Frishberg, Petrov, Reshetko). 2. Nauchno-issledovatel'skiy institut metallurgii (for Vyatkin, Bratchenko). 3. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Privalov, Mustafin, Pushkash, Lazarev).

(Blast furnaces—Testing)
(Coke—Testing)

PRIVALOV, V.Ye.

Manvers Main Central Coal-Preparation Plant (England). Koks i khim. no.8:56-57 '61. (MIRA 15:1)

1. Vostochnyy uglekhimicheskiy institut.
(Great Britain--Coal preparation)

PRIVALOV, V.Ye.; KOLESOV, A.P.; SOKOLOV, V.Z.

Adsorption removal of carbon bisulfide in the manufacture of high grade benzenes. Koks i khim. no.2:42-44 '62. (MIRA 15:3)

1. Vostochnyy uglekhimicheskiy institut.
(Benzene)

PRIVALOV, V.Ye.; CHERKASOV, N.Kh.; LEVANTOVICH, I.A.; YAROSLAVSKAYA, T.A.

Production of sulfur-free benzene from light oils by chemical refining. Koks i khim. no.3:42-44 '62. (MIRA 15:3)

1. Vostochnyy uglekhimicheskiy institut (for Privalov).
2. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Cherkasov, Levantovich, Yaroslavskaya).
(Benzene) (Sulfur compounds)

RUS'YANOVA,N.D.; GOFTMAN, M.V.; KORDEYEVA, Z.K.; PRIVALOV, V.Ye.;
ZUBOK, A.M.; KHOMUTINKIN, G.V.

Preparation of high-grade phenanthrene. Koks i khim. no.7: 48-52 Jl '61. (MIRA 14:9)

1. Ural'skiy politekhnicheskiy institut (for Rus'yanova, Goftman, Gordeyeva). 2. Vostochnyy uglekhimicheskiy institut (for Privalov). 3. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Zubok, Khomutinkin).
(Phenanthrene)

34619
S/068/62/000/003/001/003
E071/E435

5.3300

AUTHORS: Privalov, V.Ye., Cherkasov, N.Kh., Levantovich, I.A.,
Yaroslavskaya, T.A.

TITLE: The production of sulphur free benzole from pure benzole by chemical purification methods

PERIODICAL: Koks i khimiya, no.3, 1962, 42-44

TEXT: An investigation of the possibility of production of cyclohexane sulphur free benzole suitable for the manufacture of cyclohexane from pure benzole by chemical purification methods is described. On the assumption that the removal of thiophene from pure benzole under industrial conditions is sufficiently developed, the authors concentrated on the removal of other sulphurous compounds. The determination of small quantities of carbon disulphide was based on the reaction of carbon disulphide with secondary amines in the presence of copper salts with the formation of copper dithiocarbamite - a brown compound, well soluble in benzene. In the first instance the removal of carbon disulphide was attempted by washing of pure benzene with industrially available amines with additions of a number of other reagents: formaline

Card 1/3

S/068/62/000/003/001/003
E071/E435

The production of sulphur free ...

with ammonium sulphate and ammonia, monomethylolurea in acid and
alkali medium, dimethylolurea in acid and alkali medium
formaline with calcium chloride, formaline with calcex
formaline with lime, formaline with analine, formaline in alkali
and acid medium. On the whole, the experiments were unsuccessful,
in some cases a complete removal of thiophene and a decrease in
carbon disulphide was obtained. The latter was ascribed to the
presence of methyl alcohol in formaline. This was confirmed by
washing pure benzole with alcoholic solutions of alkali which
produced benzene either free or containing not more than 0.0001%
of carbon disulphide. The optimal consumption of methanol
solution of alkali was 6 to 8% [Abstractor's note: Concentration
of alkali not given.] Thiophene is not removed under these
conditions. Its removal was achieved by washing with 15% of oleum
with an addition of 1% of formaline. On the basis of the above
results the following procedure was tested on an industrial scale.
Starting material - benzene sp.gr. 0.877, drop point 79.8°C,
95% evaporated at 83°C, colour 0.35, bromine number 0.06, total
sulphur 0.02%, carbon disulphide 0.0069%, crystallization

Card 2/3

S/068/62/000/003/001/003
The production of sulphur free ... E071/E435

temperature +4.7°C. Washing: preliminary wash with 1% of oleum for 10 min, wash with 16% of oleum for 9 hours, two water washes (total consumption of water 7%, time 5 min each), preliminary wash with methanol solution of alkali (0.3%, 10 min), wash with methanol alkali (3.3%, 6 hours), two water washes (total consumption 6%, 5 min each). Washed benzole was rectified on a column with 34 plates. The product obtained was free from thiophene and carbon disulphide, sp.gr. 0.87, drop point 79.8°C, 95% at 80.4°C, crystallization temperature +5.5°C. The yield of sulphur free benzene was about 90%.

ASSOCIATIONS: VUKhIN (V.Ye.Privalov)
NTMK (the remaining authors)

Card 3/3

PRIVALOV, V.Ye., referent

CWM Coke Plant, England. Koks i khim. no. 5:59-60 '61. (MIRA 14:4)

(Great Britain--Coke industry)

PRIVALOV, Ye.

Discussing work organization considering the interests of both seamen and the merchant marine. Mor. flot 22 no.10:13-15 0 '62. (MIRA 15:10)

1. Nachal'nik TSentral'nogo proyektno-konstruktorskogo byuro No. 1 Ministerstva morskogo flota.

(Merchant marine—Management)

PRIVALOV, Ye., inzh.

Substantial editing is required. Mor. flot 21 no.12:34-35 D '61. (MIRA 14:12)

(Merchant marine—Periodicals)
(Ships—Manning)

PRIVALOV, Ye., inzhener.

Choice of marine engines. Mor. flot 17 no.4:7-9 Ap '57. (MIRA 10:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut morskogo flota.
(Marine engines)

PRIVALOV, Ye.

On a basis of constructive cooperation. Mor. flot 22 no.6:34-35 Je '62. (MIRA 15:7)

1. Nachal'nik TSentral'nogo proyektno-konstruktorskogo byuro No.1 Ministerstva morskogo flota.
(Shipbuilding--Technological innovations)

Card 1/2

L 63871-65

ACCESSION NR: AP5021579

a

have centrally placed semicircular grooves along the line of the split.

ASSOCIATION: none

SUBMITTED: 27Sep63   ENCL: 00   SUB CODE: IE

NO REF SOV: 000   OTHER: 000

mlb

Card 2/2

L 22648-65 EWT(d)/EWT(m)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(b)/EWP(1) Pf-4 JD/HM

ACCESSION NR: AP5002892 S/0135/65/000/001/0037/0038

AUTHOR: Khanyents, R. O. (Engineer); Chernakov, G. A. (Engineer); 2
Privalov, Yu. A. (Engineer) B

TITLE: Automation of welding in fabricating cylindrical shells from sheet material 14 26

SOURCE: Svarochnoye proizvodstvo, no. 1, 1965, 37-38

TOPIC TAGS: welding, automatic welding, submerged arc welding, 18 cylindrical shell welding

ABSTRACT: Automatic welding of cylindrical shells 500 mm in diameter and 1400—1800 mm long, made from low-carbon steel sheets 5 mm thick has been introduced at an unidentified plant. The longitudinal

figures. [MS]

Card 1/2

L 22648-65

ACCESSION NR: AP5002892 0

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3172

Card 2/2

FILIPPOV, A.P., kand.tekhn.nauk; PRIVALOV, Yu.Ya., aspirant

Mining of thick coal-seam outcrops in the area of Tom'-Usa mines.
Ugol' 35 no.9:29-32 S '60. (MIRA 13:10)

1. Glavnyy inzhener tresta Tomusaugol' (for Filippov). 2. Tomskiy
politekhnicheskiy institut (for Privalov).
(Kuznetsk Basin—Coal mines and mining)
(Strip mining)

KHANYANTS, R.G., inzh.; CHERNENKOV, G.A., inzh.; PRIVALOV, Yu.A., inzh.

Automation of welding operations in the manufacture of cylindrical articles from sheet material. Svar. proizv. no.1:37-38 Ja '65.
(MIRA 18:3)

SOV/133-58-8-16/30

AUTHORS: Shirokov, A.M., Candidate of Technical Sciences, and Zannes, A.N., Privalova, A.I., and Migol', G.N.

TITLE: **Favorable** Conditions for Induction-hardening of Various Parts of Equipment (Ratsional'nyye rezhimy induktsionnoy zakalki detaley oborudovaniya)

PERIODICAL: Stal', 1958, Nr 8, pp 730 - 736 (USSR)

ABSTRACT: Optimum conditions for hardening with high-frequency currents on an installation with a rotary generator of 100 kW (2 500 cps) of rolls of various diameters, tooth wheels, crane wheels and brake pulleys were investigated. The results are given in tables and figures. It is concluded that by using the above equipment for hardening a depth of the active layer of 2 - 4 mm can be obtained. The total depth of the hardened layer of up to 10 mm can be obtained. Application of high-frequency hardening brought about an increase in the service life of machine parts, on the average, by 2-3 times.
There are 11 figures, 3 tables and 3 Soviet references.

Card 1/2

SOV/133-58-8-16/30

Favorable Conditions for Induction-hardening of Various Parts of Equipment

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) and Zavod "Azovstal'" ("Azovstal'" Works)

1. Metals--Hardening 2. High frequency currents--Applications

Card 2/2

SHIROKOV, A.M., kand.tekhn.nauk; ZANNES, A.N., inzh.; PRIVALOVA, A.I., inzh.;
MIGOL', G.N., inzh.

Efficient conditions for induction hardening of machinery parts [with summary in English]. Stal' 18 no.8:730-736 Ag '58.
(MIRA 11:8)

1.Zhdanovskiy metallurgicheskiy institut i zavod "Azovstal'."
(Steel--Hardening) (Induction heating)

PRIVALOVA, G.K. [Pryvalova, H.K.]

Theory of conformal mapping of a circular ring. Dop. AN URSR no.3:303-308 '64. (MIRA 17:5)

1. Zaporozhskiy mashinostroitel'nyy institut. Predstavleno akademikom AN UkrSSR Yu.A. Mitropol'skim [Mytropol's'kyi, IU.O.].

PRIVALOVA, G.K. (g. Zaporozhye); SARAN, L.A. (g. Zaporozhye)

Some extremum problems for a class of functions starlike in the direction of the real axis. Izv. vys. ucheb. zav.; mat. no.4:126-130 '64. (MIRA 17:9)

PRIVALOVA, G. N.

Privalova, G. N. "On the theory of the stability of ionic grids," Trudy Sib. fiz.-tekhn. in-ta, Issue 26, 1948, p. 155-59, - Bibliog: p. 159

SO: U-5241, 17 December 1953, (Letopis 'Zhurnal 'nykh Statey, No.26, 1949)

FREYDLIN, L.Kh.; SHARF, V.Z.; SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.;
PRIVALOVA, I.M.; YANOTOVSKIY, M.TS.

Catalytic dehydration of 3-methyl-1,3-butanediol. Neftekhimiia
3 no.1:104-107 Ja-F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo
i Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.
(Butanediol)
(Dehydration (Chemistry))

PRIVALOVA, K. A. (Cand. Tech. Sci.)

"Survey and Comparative evaluation of Methods for Designing Gas Ejector Burners"

(Theory and Practice of Gas Combustion; Transactions of a Scientific and Technical Meeting) Leningrad, Gostoptekhizdat, 1958. 343 p.

PRIVALOVA, K.A.

Practice in using multinozzle injecter burners for gas burning in steam boilers. Trudy Inst.isp.gaza AN URSR 3:102-104 '55.
(Gas burners) (Boilers) (MIRA 9:9)

84481
S/112/59/000/014/012/085
A052/A001

26.2160
Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 14, p. 22, #28674

AUTHOR: Privalova, K. A.

TITLE: A Review and Comparative Evaluation of Calculation Methods of Ejection Gas Burners

PERIODICAL: V sb.: Teoriya i praktika szhiganiya gaza. Leningrad Gostoptekhizdat, 1958, pp. 185-201

TEXT: By a generalization of the performed comparative calculations of ejection burners the basic equation of ejection is derived:

$$\bar{p}_4 = 2\varphi_1^2 \left(\frac{\frac{F_3}{F_1} - 8_A}{\left(\frac{F_3}{F_1}\right)^2} \right),$$

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84481

S/112/59/000/014/012/085
A052/A001

A Review and Comparative Evaluation of Calculation Methods of Ejection Gas Burners

where $\bar{p}_4 = \frac{p_4 - p_0}{p_1 - p_0}$, p_0, p_1, p_4 - absolute pressures of atmospheric air and gas before the nozzle and of gas-air mixture at the outlet of the ejector; φ_1 - velocity coefficient of the nozzle; F_1, F_3 - cross-section areas of the nozzle inlet and of the mixer chamber (cylindrical part); coefficient of the mixer shape; A - ejection parameter. The sequence of calculations of the ejection gas burner is given.

B. I. L.

Translator's notes: This is the full translation of the original Russian abstract.

Card 2/2

PRIVALOVA, K.A., inzhener.

[redacted]
Investigation of injector burner mixers and of the free flow of natural gas. Trudy Inst. isp. gaza AN URSR 1:16-27 '53. (MIRA 9:6)
(Gas burners) (Gas, Natural)

PRIVALOVA, K.A.

Research on injector burner mixers and on the free flow of natural gas
Soviet Source: "RABOTA I KONSTRUKTSIYA GAZOVYKH PECHEI" (Operation and Construction of Gas Ovens), Academy of Sciences, Ukrainian SSR, 1953, p.16.

PRIVALOVA, K.P.

AVRUTOVA, Kh.Z.; PRIVALOVA, K.P.; KHLOPIN, N.Ya.

Extraction of small concentrations of tetraethyl lead from the air. Gig.i san. no.3:50-51 Mr '54. (MLRA 7:2)

1. Iz Molotovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii i Molotovskogo farmatsevticheskogo instituta. (Air--Analysis) (Tetraethyl lead)

ANDRIYEVSKIY, A.I.; ANTANOVICH, A.V.;BOGATYREV, N.A.;GLUSHCHENKO, I.P.;
GUBENKO, T.P.; ZAMORA, Ye.F.; KARANDEYEV, K.B.; LUKIN, V.I.;LUKIN,
N.I.; MAKSIMOVICH, N.G.; MOZER, V.F.; PETRENKO, S.I.; PAPERNYY, Ye.A.;
PRIVALOVA, K.A.; SITNITSKIY, Yu.I.; STASIKOV, Ya.T.; SHCHEPANKEVICH,
B.P.; CHUCHMAN, T.S.; YAGELLO, I.M.; BRILINSKIY, B.M. i dr.

G.E. Krushel'; obituary. Izv.vys.ucheb.zav.; energ. no.10:147
O '58. (MIRA 11:12)
(Krushel', Georgii Evgen'evich, 1912-1958)

PRIVALOVA, K.A.

SOV/143-58-10-20/24

AUTHORS: Andriyevskiy, A.I., Antanovich, A.V., Bogatyrev, N.A., Glushchenko, I.P., Gubenko, T.P., Zamora, Ye.P., Karandeyev, K.B., Lukin, V.I., Lukin, N.I., Maksimovich, N.G., Mozer, V.P., Petrenko, S.I., Papernyy, Ye.A., Privalova, K.A., Sitnitskiy, Yu.I., Stasikov, Ya.T., Shchepankevich, B.P., Chuchman, T.S., Yagello, I.M., Brilinskiy, B.M., and others

TITLE: G.Ye. Krushel', Deceased

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika, 1958, Nr 10, p 147 (USSR)

ABSTRACT: This is an obituary of Doctor of Technical Sciences, Professor Georgiy Yevgen'yevich Krushel' of the L'vovskiy politekhnicheskiy institute (L'vov Polytechnic Institute). Krushel' was born in Moscow in 1912 as the son of an engineer. He died on July 20, 1958 because of an accident. He graduated in 1931 from the "Proftekhshkola". While working in the industry, G. Ye. Krushel' studied at the Khar'kovskiy mekhaniko-mashinostroitel'nyy institut (Khar'kov Institute of

Card 1/3

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extensively prime movers for the feed pumps of high-power boiler-turbine units. Besides research work, Krushel' devoted his attention to the training of engineers in his field. The Soviet Union lost one of its foremost scientists. There is 1 photograph.

Card 3/3

PRIVALOVA, K. P.

35851 PRIVALOVA, K. P., KHLOPIN, N. YA., I RAFALOVICH, N. A.

Polyarograficheskiy metod opredelniya fosfat-iona. Zavodskaya laboratoriya, 1949, No. 77, s. 1305-07

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

KHLOPIN, N.YA.; LITVINOVA, N.S.; PRIVALOVA, K.P.

Polarographic determination of saccharin. Gig.sanit.,Moskva No.2: 48-51 Feb 51. (CLML 20:6)

1. Of Molotov Pharmaceutical Institute and of Molotov Oblast Sanitary Hygienic Laboratory.

PRIVALOVA, K. P.

KHLOPIN, N. Ya;LITVINOVA, N. S;PRIVALOVA, K. P.

Polarographic determination of zinc in food products. Gig. sanit., Moskva no.4:47 Apr. 1952. (CLML 22:2)

1. Of Molotov Oblast Sanitary-Epidemiological Station.

PRIVALOVA, K. P.

7

Removal of small amounts of tetraethyl lead from air. Kh. Z. Avrutova, K. P. Privalova, and N. Ya. Khlopin (Pharm. Inst., Molotov). *Gigiena i Sanit.* 1954, No. 3, 50–1.—A satisfactory method for extn. of small concns. of Et_4Pb in air sampling is to absorb the substance in a soln. of 11.066 g. KI and 16.93 g. I in 100 ml. H_2O contained in a train of 3 absorption bulbs. The detn. proper is then run polarographically in 2*N* KCl. G. M. Kosolapoff

9-20-54

P-RIVALOVA, K.P.

7

3

52-55

1024. **Polarographic determination of nickel with calcium chloride as supporting electrolyte.** K. P. Privalova, Kh. Z. Avrutova and N. Ya. Khlopin (Molotov District Sanitary-Epidemic Station). *Zavod. Lab.*, 1955, 21 (6), 670–671.—Small additions of KSCN (0·05 ml of ½ *M* per 1 ml of 30 per cent. $CaCl_2$ solution) or pyridine (0·05 ml of 0·5 *M*) improve the shape of the polarographic wave of Ni in $CaCl_2$ and produce a linear relationship between the concn. and the diffusion current. The wave due to Cd is almost completely suppressed when pyridine is present. Thus Ni can be determined in the presence of Cd.

G. S. Smith

RM

KHLOPIN, N.Ya.; PRIVALOVA, K.P.

Polarographic determination of nickel in margarine and cooking fats. Vop.pit. 19 no.1:74-75 Ja-F '60. (MIRA 13:5)

1. Iz kafedry neorganicheskoy i analiticheskoy khimii (zav. - prof. N.Ya. Khlopin) Permskogo farmatsevticheskogo instituta i sanitarno-epidemiologicheskoy stantsii (glavnyy vrach V.V. Dianova).
(NICKEL chemistry)
(FATS chemistry)

VUL'F, Yevgeniy Vladimirovich [deceased]. Prinimali uchastiye: CHERNOVA, N.M., botanik; PRIVALOVA, L.A., botanik; ZEFIROV, B.M., botanik. STANKOV, S.S., prof., red.; ROSSOSHANSKIY, A.A., red.; GOR'KOVA, Z.D., tekhn.red.; ZUBRILINA, Z.P., tekhn.red.

[Flora of the Crimea] Flora Kryma. Pod red. S.S.Stankova. Moskva, Gos.izd-vo sel'khoz.lit-ry. Vol.3., no.1. [Dicotyledoneae Ericaceae-Oleaceae] Dvudol'nye vereskovye - maslinnye. 1957. 84 p. (MIRA 12:5)

1. Gosudarstvennyy Nikitskiy botanicheskiy sad (for Chernova, Privalova, Zefirov).
(Crimea--Dicotyledons)

VINTS, B.D.; PRIVALOVA, L.A.

Revise of the normal geomagnetic field of intensity T for the epoch 1950 for the territory of the U.S.S.R. (east of the Yenisey). Geomag. i aer. 2 no.3:527-531 My-Je '62. (MIRA 15:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR, Leningradskoye otdeleniye.
(Siberia—Magnetism, Terrestrial)

RUBTSOV, N.I.; PRIVALOVA, L.A.; KRYUKOVA, I.V.

Brief bioecologic analysis of the Crimean flora. Bot. zhur. 46 no.8:1087-1097 Ag '61. (MIRA 15:1)

1. Nikitskiy botanicheskiy sad, Krym.
(Crimea--Botany--Ecology)

VUL'F, Ye.V. [deceased]; BORISOVA, A.G. (Leningrad); VASIL'YEV, V.F. [deceased]; POYARKOVA, A.I. (Leningrad); STANKOV, S.S.; KHRZHANOVSKIY, V.G. (Moskva); CHERNOVA, N.M. (Simferopol'); YUZEPCHUK, S.V. [deceased]; PRIVALOVA, L.A., starshiy nauchnyy sotrudnik, red.; ROSSOSHANSKIY, A.A., red.; GUREVICH, M.M., tekhn.red.

[Flora of the Crimea] Flora Kryma. Pod red. S.S.Stankova. Moskva, Gos.izd-vo sel'khoz.lit-ry. Vol.2, no.2. [Dicotyledoneae: Crassulaceae - Leguminosae] Dvudol'nye: tolstiankovye - bobovye. 1960. 311 p. (MIRA 14:1)

1. Gosudarstvennyy Nikitskiy botanicheskiy sad (for Privalova).
(Crimea--Dicotyladons)

PRIVALOVA, L.A.

Brief study on vegetation covering in the eastern part of the Crimean upland and problems of its economic utilization. Izv. Krym.otd.Geog.ob-va no.4:31-42 '57. (MIRA 14:8)
(Crimean Mountains--Vegetation and climate)

PRIVALOVA, L.A.

Flora of the eastern portion of the Crimean Mountains. Biul. MOIP.Otd.biol. 59 no.6:49-54 N-D '54. (MLRA 8:2)
(Crimean Mountains--Botany)

[illegible], L.G.; MAYZUS, Z.K.; EMANUEL', N.M.

Effect of oxidation products of n-decane on the activity of radicals in chain propagation reactions. Zhur. fiz. khim. 39 no.8:1965-1969 Ag '65. (MIRA 18:9)

1. Institut khimicheskoy fiziki AN SSSR.

L 1654-66 EWT(m)/EPF(c)/EWP(j) RPL RM

ACCESSION NR: AP5021420

UR/0076/65/039/008/1965/1969
541.124/.128

42
39
B

AUTHOR: Privalova, L. G.; 44,55 Mayzus, Z. K.; 44,55 Denisov, Ye. T. 44,55

TITLE: Effect of the oxidation products of *n*-decane 1 on radical activity in the chain propagation reaction

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 8, 1965, 1965-1969

TOPIC TAGS: decane oxidation, free radical, 1 reaction rate, reaction kinetics, 1 chain propagation

ABSTRACT: 44,55 The purpose of the study was to determine the role of one of the intermediates (alcohol) in the chain propagation reaction involved in the oxidation 7 of *n*-decane, its influence on the composition and activity of the radicals, and the contribution of the formation of the alcohol to the change in the overall oxidation rate of *n*-decane. To this end, the value of $w/\sqrt{w_i}$ [RH] (where w is the rate of the chain process of oxidation of the hydrocarbon and w_i the initiation rate of radicals) was measured in the course of oxidation of *n*-decane in experiments involving the addition of the alcohol (5-nonanol) and compared with the corresponding values

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ACCESSION NR: AP5021420

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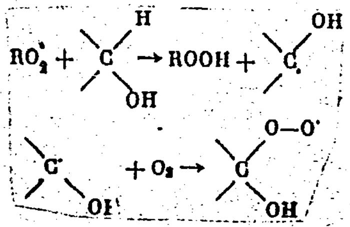
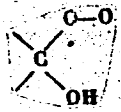
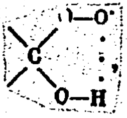
obtain during oxidation of *n*-decane without the addition of the products. Addition of the alcohol was found to decrease considerably the activity of the radicals propagating the oxidation chains. The radicals formed by the reaction of RO_2, with the alcohol are 5.2 times less active than the RO_2. radicals. The reaction of RO_2. with the alcohol may be represented as follows:



Thus, the RO_2. radical is substituted for the  radical. In the latter, an intraradical hydrogen bond , may be formed which lowers the activity of this

L 1654-66

ACCESSION NR: AP5021420

3

radical. Differences in the nature of the dependence of $w/\sqrt{w_i}$[RH] on ROOH obtained from the experimental data and calculated by allowing for the effect of the alcohol indicate that the effect of the oxidation products of n-decane is not limited to the inhibiting influence of the alcohol, and that on the contrary, other products present in the reaction mixture have an accelerating effect on the oxidation process. The overall effect of all the oxidation products causes first an increase, then a decrease in the activity of the radicals. Orig. art. has: 3 figures and 9 formulas.

ASSOCIATION: Institut khimicheskoy fiziki, Akademiya nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR) 44,55

SUBMITTED: 29Jun64

ENCL: 00

SUB CODE: GC

NO REF SOV: 012

OTHER: 000

Card 3/3 DP

L 17061-63 EPR/EPF(c)/EWP(q)/EWT(m)/BDS S/062/63/000/004/005/022
AFFTC Ps-4/Pr-4 RM/WW/JD 68

AUTHOR: Mayzus, Z. K. and Privalova, L. G. 66

TITLE: Importance of reaction products in the mechanism of n-decane 7 oxidation]

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 4, 1963, 628-633

TEXT: In a continuation of work in the field, the effect of alcohol additives on the formation rate and consumption of hydrogen peroxides was studied and measurements were made of these rates for deeper oxidation of n-decane. By means of the kinetic isotope method it was found that in the liquid phase oxidation of n-decane there initially occurs an increase of the rates of formation and consumption of hydrogen peroxides, 27 later a decrease of these rates, again changing their growth. The observable changes in the process mechanism are explained by the effect of the reaction products on the elementary stages of the extension and branching of the chains. The decrease in the rates of formation and consumption of hydrogen peroxides is associated with the

Card 1/2

L 17061-63 S/062/63/000/004/005/02

Importance of reaction products in the..... 2

decrease in activity of the radicals leading the chain process as a result of the interaction of the peroxide radical with alcohol. Increase of these rates after a minimum is explained by an acceleration of decomposition of hydrogen peroxides into radicals under the action of the acid formed in the reaction. There are 7 figures.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences USSR)

SUBMITTED: June 15, 1962

Card 2/2

L 53900-65 EWT(m)/EPF(c)/T/EWP(j) Pc-4/Pr-4 RPL RM

ACCESSION NR: AP5011540 26 25 B UR/0020/65/161/005/1135/1137

AUTHORS: Privalova, L. G.; Mayzus, Z. K.; Emanuel', N. M. (Corresponding member AN SSSR)

TITLE: The mechanism of forming free radicals during decomposition of hydroperoxides by organic acids

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1135-1137

TOPIC TAGS: hydroperoxide, free radical, chain structure, oxidation

ABSTRACT: Investigation of chain splitting in the oxidation of n-decane has shown that at relatively slight conversion of the n-decane the formation of radicals proceeds by two parallel reactions: by monomolecular decomposition of hydroperoxide and by bimolecular reaction between hydroperoxide and the original hydrocarbon. As the depth of oxidation increases, the splitting mechanism becomes more complex. The accumulation of organic acids (among the reaction products) leads to a marked increase in rate of hydroperoxide decay to radicals. It has been proposed that the radicals form by decomposition of an intermediate complex between the hydroperoxide and the acid, forming by development of intermolecular hydrogen bonds. To test this, the authors investigated the dependence of decomposition rate on acid

Card 1/2

L 53900-65

ACCESSION NR: AP5011540

concentration. The tests were carried out in an oxidation chamber and were made at 100, 110, 120, 140, and 150C. Oxidized n-decane was placed in the chamber and brought to one of the desired temperatures. Alpha naphtol was then added in sufficient quantity to cause complete suppression of chain decomposition of the hydroperoxide. The dependence curve was found to level off, showing that the rate of decomposition reaches a point beyond which it no longer depends on acid concentration, and this means that the splitting takes place through intermediate formation of a complex that then breaks down to free radicals. The authors conclude that at deep stages of oxidation, when organic acids accumulate in considerable quantities in the reaction mixture, the reaction between hydroperoxide and acid, with the formation of free radicals, becomes the principal reaction in the splitting of chains. Orig. art. has: 3 figures, 1 table, and 6 formulas.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 23Dec64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 008 OTHER: 002

Card 2/2

PRIVALOVA, L.G.; MAYZUS, Z.K.

Effect of organic acids on the mechanism of chain branching during oxidation of decane. Iz.AN SSSR.Ser.khim. no.2:281-286 F '64. (MIRA 17:3)

1. Institut khimicheskoy fiziki AN SSSR.

PRIVALOVA L.G.

OOK EXPLOITATION 5

Akademiya nauk SSSR. Institut khimicheskoy fiziki

Okisleniye uglevodorodov v zhidkoy faze; sbornik statey (Oxidation of Hydrocarbons in the Liquid Phase; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 334 p. Errata slip inserted. 2,200 copies printed.

Ed.: N. M. Emanuel', Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: K. M. Dyumayev; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for chemists interested in hydrocarbon oxidation reactions, particularly for those specializing in petroleum fuels.

COVERAGE: This collection of 35 articles represents the results of investigations over a period of several years on problems of hydrocarbon oxidation. The authors present their own theoretical and experimental data and also draw from current literature. No personalities are mentioned. References accompany most of the articles.

Rafikov, S.R., and B.V. Suvorov [Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR (Institute of Chemistry, Academy of Science Kazakhskaya SSR)]. Mechanism of the Action of Inhibitors on Oxidation by Molecular Oxygen 98

The authors show that oxidation inhibitors are not effective when they oxidize faster than the compounds being oxidized. Optimum inhibiting effect occurs in the initial reaction stages when the concentrations of inhibitors are comparable with concentrations of free radicals and peroxides.

Berezin, I.V., L.G. Berezkina, and T. A. Nozarva [Moscow State University imeni M.V. Lomonosov]. Using the Tagged-Atom Method to Study Intermediate Reactions of Fatty Acids and Esters in the Liquid-Phase Oxidation of Paraffin 101

The authors have synthesized n-decane and stearic acids with the carboxyl radicals tagged with C^{14}. It is shown that the main portion of esters formed during paraffin oxidation are not products of direct esterification of acids by the alcohols formed during oxidation, but are formed by the decomposition and regrouping of free radicals from ketone α-hydroperoxides.

Shlyapintokh, V.Ya., and N.M. Emanuel' [Institute of Chemical Physics]. Mechanism of the Optical Sensitization of Liquid-Phase Oxidation by Molecular Oxydation of 2, 7-Dimethyloctane 113

The combined effects of photochemical activation and the catalytic action of polyvalent metal (Cu^{2+} and Fe^{3+}) stearates on the oxidation of 2,7-dimethyloctane are investigated. Additions of metal salts play the role of photoinitiators. The authors detect reaction acceleration caused by the photolysis of Cu^{2+} and Fe^{3+} stearates, and confirm the formation of free radicals which cause this acceleration.

Tinyakova, Ye.I., B.A. Dolgoplosk, and V.N. Reykh [Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High Molecular Compounds, Academy of Sciences USSR; Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka (All-Union Scientific Research Institute of Synthetic Rubber)]. Oxidation-Reduction Systems for Initiating Oxidation Processes in Hydrocarbon Media and the Mechanism of Their Action 117

The authors show that oxidation-reduction systems, widely used for initiating low-temperature polymerization processes, can be successfully employed for initiating oxidation reactions. The role of polyvalent metal salts in the decomposition of peroxides and the oxidation of hydrocarbons is discussed.

Blyumberg, E.A., Z.K. Mayzus, and N.M. Emanuel' [Institute of Chemical Physics]. Liquid-Phase Oxidation of n-Butane at Near-Critical Temperatures and Pressures 125

The authors discuss the kinetics and chemistry of a purportedly new method for liquid-phase oxidation of n-butane. Initiating the reaction with NO_2 and catalyzing with $CoSt_2$ resulted in a shorter induction period by increasing the initial rate of chain growth. Acetic acid and methyl ethylketone are the principal products of the reaction.

Mayzus, Z.K., L.G. Privalova, and N.M. Emanuel' [Institute of Chemical Physics]. Change in the Mechanism of n-Decane Oxidation in the Course of the Reaction 152

The authors have used C^{14} tagged n-decane to investigate changes in the rates of formation and consumption of n-decyl hydroperoxides during the oxidation of n-decane. The hypothesis that variations in the activities of radicals carrying on chain reactions are proportional to the accumulation of oxygen-containing oxidation products in the

ting mixture is o possible explanati

menon.

MAYZUS, Z.K.; PRIVALOVA, L.G.

Part played by reaction products in the mechanism of n-decane oxidation. Izv. AN SSSR. Otd.khim. nauk no.4:628-633 Mr '63.
(MIRA [illegible])

1. Institut khimicheskoy fiziki AN SSSR.
(Decane) (Oxidation)

UMNOVA, M. A.; PRIVALOVA, L. I.

"On the Frequency of Antibody Formation in Werlhof's Disease."

Paper presented at the Eleventh Congress of the International Society of Blood Transfusion, Mexico,City, 5-12 Sep 1962

Blood Group Reference Laboratory, Central Inst. of Hematology and Blood Transfusion, Moscow, USSR

UMNOVA, M.A.; PRIVALOVA, L.I.; GUSSEYNOV, Ch.S.; TSEPA, L.S.

Immunological activity in patients with Werlhof's diseases. Probl. gemat. i perel. krovi 8 no.12:25-27 D '63. (MIRA 17:9)

1. Iz TSentral'nogo ordena Lenina instituta gematologii i prelivaniya krovi (dir.- dotsent A.Ye. Kiselev).

DUL'TSIN, M.S., prof.; LORIYE, Yu.I.; PRIVALOVA, L.I.

Some problems in the pathogenesis of autoimmune hemolytic anemias.
Sov. med. 28 no.1:3-9 Ja '65. (MIRA 18:5)

1. Gematologicheskaya klinika (zav. - prof. M.S. Dul'tsin) Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - dotsent A.Ye. Kiselev) Ministerstva zdravookhraneniya SSR, Moskva.

PRIVALOVA, M. M.: Master Chem Sci (diss) -- "Investigation of the process of extracting tri- and pentavalent antimony with oxygen-containing solvents". Moscow, 1959. 12 pp (Acad Sci USSR, Inst of Geochem and Analytic Chem im V. I. Vernadskiy), 160 copies (KL, No 17, 1959, 106)

PRIVALOVA, M.M.; RYABCHIKOV, D.I.

Extraction of metals from hydrochloric acid solutions by diisoamyl ester. Ekstr., teor.,prim.,app. no.2:165-173 '62. (MIRA 15:9)
(Metals—Analysis) (Extraction (Chemistry))

PRIVALOVA, M.M.; KONOVALOVA, V.F.

Extraction of niobium with di-n-butylphosphoric acid.
Zhur. neorg. khim. 10 no.1:251-258 Ja '65.
(MIRA 18:11)

1. Submitted Sept. 12, 1962.

PRIVALOVA, M.M.; RYABCHIKOV, D.I.

Polarographic investigation of antimony complexes with ethylenediaminotetraacetic and 1,2-diaminocyclohexanetetraacetic acids. Zhur.neorg.khim. 7 no.11:2537-2544 N '62. (MIRA 15:12)
(Antimony compounds) (Acetic acid)
(Polarography)

PRIVALOVA, M.M.; RYABCHIKOV, D.I.

Effect of hydrolysis on the extraction of antimony with diisoamyl ether and isoamyl alcohol. Zhur.neorg.khim. 5 no.7:1605-1611 Jl '60. (MIRA 13:7)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo Akademii nauk SSSR.
(Antimony) (Extraction(Chemistry))

9142

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7000

INVESTIGATION OF BROMINE ISOTOPE EXCHANGE BETWEEN ORGANIC AND METAL BROMIDES. An. N. Nesmeyanov, V. Ya. Kabanov, Yu. P. Trunov and M. M. Privalova (Lomonosov Moscow State Univ.). Zhur. Fiz. Khim 30, 560-73(1956) Mar. (In Russian)

Exchange of Br between NaBr, RbBr, $CaBr_2$, $BaBr_2$, $ZnBr_2$, $CdBr_2$, $SbBr_3$ and n-butyl and ethyl bromides has been studied using absolute acetone mixtures, CCl_4, dioxane, and acetonitrile as solvents. Exchange between $SbBr_3$ and n-butyl bromide was investigated in the absence of solvent and in a gaseous phase. Results showed the effect of the ionic molecular mechanism of the exchange between organic and metal bromides. The absence of exchange, observed in a number of systems — due to a slight dissociation of the bromide in the respective solvents. A new method was developed for introducing bromine into $SbBr_3$ and $AlBr_3$ which can be used in preparation of other active bromides. (tr-auth)

PRIVALOVA, M.M.; RYABCHIKOV, D.I.

Mechanism of extraction of tri- and pejtivalent antimony by tributylphosphate. Trudy kom.anal.khim. 9:301-322 '58. (MIRA 11:11)

(Antimony) (Extraction (Chemistry)) (Phosphates)

PRIVALOVA, M.M.

5(2); 21(5) PHASE I BOOK EXPLOITATION SOV/1900

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Primeneniye radioaktivnykh izotopov v analiticheskoy khimii (Use of Radioactive Isotopes in Analytical Chemistry) Moscow Izd-vo AN SSSR, 1958. 366 p. [Series: Its: Trudy, t. 9 (12)] Errata slip inserted. 3,000 copies printed.

Resp. Ed.: I.P. Alimarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.N. Yermakov; Tech. Ed.: T.V. Polyakova.

PURPOSE: The book is intended for chemists and chemical engineers concerned with work in analytical chemistry.

COVERAGE: The book is a collection of the principal papers presented in Moscow at the Second Conference on the Use of Radioactive Isotopes. The problems discussed at the Conference included coprecipitation, aging, and solubility of precipitates, determination of the instability constants

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of complex compounds, separation of rare earth metals, and ion-exchange chromatography. No personalities are mentioned. There are 351 references, 175 of which are Soviet, 33 German, 19 French, 8 Swedish, 2 Hungarian, and 2 Czech.

TABLE OF CONTENTS:

Use of Radioactive Isotopes (Cont.) SOV/1900

Lavrukhina, A.K., and S.S. Rodin. Study of the Analytical Chemistry of Francium with the Aid of Radioactive Isotope Fr^{212} 274

Nikolayev, A.V., A.A. Sorokina, and A.S. Maslennikova. Use of Radioactive Indicators in the Analysis of Rare Earth Elements 284

Korenman, I.M., A.A. Tumanov, and Z.V. Kraynova. Precipitation of Zirconium Dihalooxinates (Analysis Nm) 288 294

Privalova, M.M., and D.I. Ryabchikov. Extraction Mechanism of Tri- and Pentavalent Antimony with Tributylphosphate 301

Bykovskaya, Yu. I. Determination of Tungsten and Niobium in High Alloys 323

Bykovskaya, Yu. I. Determination of Niobium in the Presence of Large Quantities of Titanium 329

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L 34504-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 IJP(c) JD/JG

ACCESSION NR: AP5002804 S/0078/65/010/001/0251/0258

AUTHOR: Privalova, M. M.; Konovalova, V. F.

26
B

TITLE: Extraction of niobium with di-n-butylphosphoric acid

27

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 1, 1965, 251-258

TOPIC TAGS: niobium, extraction, butylphosphoric acid

ABSTRACT: The distribution of microamounts of Nb(V) between solutions of $H2SO_4$ or HCl and a 0.2M solution of di-n-butylphosphoric acid (DBPA) in chloroform was investigated. Nb was extracted almost quantitatively in one extraction from 0.2-11N HCl and with H_2SO_4 whose concentration $\leq$ 1N. Extraction equilibrium was attained within 10 minutes. Changing the Nb concentration from detectable amounts to 10^{-3} M did not affect its distribution. A complex relationship existed in H_2SO_4 solutions between the amount of extraction and the H_2SO_4 concentration and the method of preparing the initial Nb solution. Significant adsorption losses occurred during extraction, depending on the source of the

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L 34504-65

ACCESSION NR: AP5002804

of the initial Nb solution, extraction time, and Nb and DBPA concentrations. 2-3 molecules of DBPA entered into the formation of the extractable compound on extracting from $\sim$1N HCl. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 12Sep62 ENCL: 00 SUB CODE: GC

NR REF SOV: 008 OTHER: 010

Card 2/2

Privalova, M. M.

4

Investigation of the isotopic exchange of bromine between
the bromides of elements and the organic bromine deriva-
tives. A. N. Nesmeyanov, V. Ya. Kabanov, Yu. P.
Trusov, and M. M. Privalova (M. V. Lomonosov State
Univ., Moscow). Zhur. Fiz. Khim. 30, 566-76(1956).—
The activation energy was detd. of the isotope exchange of
$NaBr$, $RbBr$, $CaBr_2$, $BaBr_2$, and BuBr in abs. acetone, and
NaBr with BuBr in MeCN. The Br exchange between
$CaBr_2$ and BuBr proceeds in accordance with the ion-mol.
reaction kinetic equation, without $CaBr_2$ dissocn. Water
addn. to acetone retards the isotope exchange in EtBr-NaBr
5 and BuBr-NaBr systems. This retardation is greater in the
1st system, in agreement with the "active complex" theory
of ion-mol. reactions. Alkali or neutral salts retard the
exchange between NaBr and BuBr. No exchange was
found in abs. acetone in the $ZnBr_2$-BuBr, $CdBr_2$-BuBr, and
— $SbBr_3$-BuBr systems at 55°; nor in MeCN at 80.1° for
$CdBr_2$-BuBr; nor in CCl_4 for $SbBr_3$-BuBr at 28 and 76.8°;
nor in dioxane in the $SbBr_3$-BuBr system at 70.8 and 100°;
nor in the $SbBr_3$-BuBr system at 37.2 and 100° with no
solvent. The absence of exchange in these systems is attrib-
0 uted to the small dissocn. of the bromides in these solvents
and to the assocn. of the mol. of the inorg. bromides with the
formation of complexes with the O-contg. solvents. The Br
in $SbBr_3$ does enter into double decompn. reactions with
— BuBr and $C_2H_4Br_2$ in the vapor phase. The elec. conduc-
tivities of NaBr, $CaBr_2$, $BaBr_2$, $ZnBr_2$, and $CdBr_2$ in abs.
acetone were detd. A new method was found for the
introduction of Br^* into $SbBr_3$ and $AlBr_3$. The method may
also be useful in the production of other compds. contg.

1/2

Nesmeyanov, A.N.; Kabanov, V. Ya.

*active Br. The method consisted in heating finely powdered $NaBr^*$ with $SbBr_3$ in a Wurtz flask on a boiling water bath. The reaction took place between the fused $SbBr_3$ (m.p. 96.6°) and the $NaBr^*$. After heating for several hrs. the active $SbBr^*_3$ was distd. off in a stream of dry CO_2. The reaction was more complete the finer the NaBr was ground. The NaBr crystals were not changed in appearance at the end of the reaction. W. M. Sternberg

2/2

RM

VOROB'YEV, A.F.; MONAYENKOVA, A.S.; PRIVALOVA, N.M.; SKURATOV, S.M.

Enthalpy of the formation of OH^-, K^+, Na^+, Li^+ ions in aqueous solutions. Vest. Mosk. un. Ser. 2: Khim. 18 no.3:48-51 My-Je '63. (MIRA 16:6)

1. Laboratoriya termokhimii Moskovskogo universiteta.
(Ions) (Enthalpy)

VOROB'YEV, A.F.; PRIVALOVA, N.M.

Enthalpy of formation of anions of oxychloro acids in aqueous solutions. Vest.Mosk.un. Ser.2:Khim. 18 no.6:22-26 N-D '63. (MIRA 17:4)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.

VOROB'YEV, A.F.; PRIVALOVA, N.M.; KHUAN LI-DAO [Huang Li-Tao]

Determination of the enthalpy of formation of the chlorate ion in aqueous solutions. Vest.Mosk.un. Ser.2:Khim. 18 no.6:27-31 N-D '63. (MIRA 17:4)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.

VOROB'YEV, A.F.; PRIVALOVA, N.M.; STOROZHENKO, L.V.; SKURATOV, S.M.

Standard enthalpies of formation of some picrates. Dokl. AN SSSR
135 no.5:1131-1132 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lononosova.
Predstavleno akademikom A.N.Frumkinym.
(Enthalpy) (Picric acid)

ACCESSION NR: AP3001608 S/0189/63/000/003/0048/0051

AUTHORS: Vorob'yev, A. F.; Monayenkova, A. S.; Privalova, N. M.; Skuratov, S. M.

TITLE: Enthalpy of formation for OH^-, K^+, Na^+, Li^+ ions in water solutions

SOURCE: Moscow. Universitet. Vestnik. Seriya 2, Khimiya, no. 3, 1963, 48-51

TOPIC TAGS: alkali, enthalpy of formation, hydroxyl ion, cation, dilute solution

ABSTRACT: The enthalpy of formation for OH^- and alkaline ions has been calculated at 25C using international tables, 1961 edition, for the atomic weights. A root mean square error analysis has been made to determine the limits of calculation accuracy. For the hydroxyl ion, the calculation is based on the neutralization enthalpy of a strong acid by a strong base in an infinitely dilute solution: $OH^-_{(p\text{-}p\infty)} + H^+_{(p\text{-}p\infty)} = H_2O(\text{liquid})$. This leads to the values

$$\Delta H_F(OH^-_{p\text{-}p\infty}) = \Delta H_F(H_2O_{liq}) - \Delta H_{neut} - \Delta H_F(H^+_{p\text{-}p\infty}) =$$
$$= (-68{,}32 \pm 0{,}01) - (-13{,}34 \pm 0{,}02) - O = -54{,}98 \pm 0{,}02 \text{ kcal/g-ion}.$$

When the enthalpy of formation of the hydroxyl ion is known, the ΔH_F of the cation alkali metals can be determined from the known ΔH_F of alkali-hydroxides in an infinitely dilute

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ACCESSION NR: AP3001608

solution. In an equation form this yields $\Delta H_F(M^+_{p\text{-}p\,\infty}) = \Delta H_F(MOH_{p\text{-}p\,\infty}) - \Delta H_F(OH^-_{p\text{-}p\,\infty})$, $M = Na, Li, K$. Finally, the enthalpy of formation for OH^- and the three alkalies is listed as

Ион		OH^-	Na^+	K^+	Li^+
ΔH_F	ккал/г-ион	−54,98±0,02	−57,50±0,02	−60,34±0,02	−66,58±0,04

Orig. art. has: 3 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet, Laboratoriya termokhimii (Moscow State University, Laboratory of Thermochemistry)

SUBMITTED: 02Apr62 DATE ACQ: 09Jul63 ENCL: 00

SUB CODE: GC NO REF SOV: 003 OTHER: 015

Card 2/2

SKURATOV, S.M.; VOROB'YEV, A.F.; PRIVALOVA, N.M.

Enthalpies of formation of some perchlorates. Zhur.neorg.khim. 7 no.3:677-679 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet.
(Perchlorates) (Enthalpy)

VOROB'YEV, A.F.; PRIVALOVA, N.M.; SKURATOV, S.M.

Enthalpy of formation of halogen anions in aqueous solutions.
Vest.Mosk. un. Ser.2: Khim. 18 no.4:39-45 Jl-Ag '63.
(MIRA 16:9)

1. Laboratoriya termokhimii Moskovskogo universiteta.
(Halides) (Thermochemistry)

S/020/60/135/006/020/037
B016/B060

11.2110

AUTHORS: Vorob'yev, A. F., Privalova, N. M., Monayenkova, A. S., and Skuratov, S. M.

TITLE: Standard Enthalpies of the Formation of Perchloric Acid and Some Perchlorates

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6, pp. 1388-1390

TEXT: The authors report on standard formation enthalpies established by them concerning (1) perchlorates of potassium, sodium, and barium, (2) perchloric acid, and (3) perchlorates of lithium, ammonium, calcium, and magnesium. The law by Hess served for calculations in cases (1) and (3). For case (2) the enthalpy was determined by two independent methods: (a) on the basis of the formation enthalpies of $KClO_4$, and (b) of $NaClO_4$, a system of thermochemical equations 1 - 6 being used corresponding to ΔH_1 - ΔH_6. The resulting equation 6 reads for the case (b):

VC

$\Delta H_6 = \Delta H_1 - \Delta H_2 - \Delta H_3 - \Delta H_4 + \Delta H_5$, or:

Card 1/3

√C

Standard Enthalpies of the Formation of Perchloric Acid and Some Perchlorates

S/020/60/135/006/020/037
B016/B060

$1/2H_2[gas] + 1/2Cl_2[gas] + 2O_2[gas] + [458H_2O] = HClO_4[solution HClO_4 \cdot 458H_2O]$

For the case (a) the concentration of the $KClO_4$ solution was set equal to $KClO_4 \cdot 4500H_2O$. Correspondingly, the acid and alkali concentration in the reaction of neutralization amounted to $HClO_4 \cdot 4500H_2O$ and $KOH \cdot 25H_2O$, respectively. ΔH_1 was determined on the basis of the data obtained in the first part of the work, ΔH_2 and ΔH_3 were measured experimentally, ΔH_4 and ΔH_5 were taken from the literature. The agreement between the values obtained by methods (a) and (b) confirms their reliability. These values are listed in Table 2. The formation enthalpies of NaCl and KCl were calculated on the basis of data found in the literature. For the formation enthalpy of $BaCl_2$ the authors based on their own experiments (Table 1) in addition to data by H. Siemonsen (Ref. 3). The enthalpies of perchlorates dealt with in Chapter I were determined by measuring their decomposition enthalpies in corresponding chlorides and oxygen in a massive air-tight microcalori-

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Standard Enthalpies of the Formation of Perchloric Acid and Some Perchlorates

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meter devised for the purpose (description in Ref. 1). Table 1 lists the measurement results. (3) Apart from the law by Hess, the thermochemical equations given in Chapter II were used for calculating the formation enthalpies. The dissolution enthalpies of the perchlorates mentioned, the neutralization enthalpies of perchloric acid by CaO and MgO as well as by solutions of LiOH and NH_4OH were measured experimentally. The value (-29.77 ± 0.17 kcal/mole) found in Chapter II of the article under consideration was used for the formation enthalpy of the $HClO_4$ solution. The formation enthalpies of CaO and MgO as well as of the solutions of LiOH and NH_4OH and of liquid water are taken from the literature. Table 3 lists the results. There are 3 tables and 5 references: 2 Soviet, 1 French, and 2 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: July 5, 1960, by A. N. Frumkin, Academician

SUBMITTED: July 5, 1960

Card 3/3

[illegible]

[illegible]

PRIVALOVA, V. Ye., Cand Phys-Math Sci -- (diss) "Quantitative analysis of the composition and photoelectric properties of antimony-alkali compounds." Leningrad, 1960. 10 pp; (Leningrad Order of Lenin State Univ im A. A. Zhdanov); 200 copies; price not given; bibliography at end of text (10 entries); (KL, 27-60, 148)

MAYSKAYA, K.A.; [illegible], V.Ya.

Effect of light on effective photocathodes without current takeoff. Radiotekh. i elektron. 10 no.3:51[illegible]-517 Mr '65.
(MIRA 18:[illegible])

MOSTOVSKIY, A.A.; VOROB'YEVA, O.B.; PRIVALOVA, V.Ye.

Effective photocathode sensitivity in the near ultraviolet region.
Radiotekh. i elektron. 7 no.9:1632-1636 S '62. (MIRA 15:9)
(Cathodes)

L 37016-65 EWT(1)

ACCESSION NR: AP5007098 S/0109/65/010/003/0512/0517

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AUTHOR: Mayskaya, K. A.; Privalova, V. Ye.

TITLE: Effect of light on efficient photocathodes under open-circuit conditions

21

SOURCE: Radiotekhnika i elektronika, v. 10, no. 3, 1965, 512-517

TOPIC TAGS: photocathode, photocathode sensitivity

ABSTRACT: The results of an experimental investigation of the effect of sunlight on the photoelectric and semiconductor properties of antimony-alkali-metal photocathodes are reported. Illumination causes an increase in the efficiency of phototubes in the near-threshold region of spectral sensitivity, an increase in the conductance of the photolayer, and a variation of the activation energy. The changes are most pronounced with oxygen-sensitized antimony-cesium photocathodes; their sensitivity increases by several times. The sensitivity of multi-alkali-metal photocathodes increases by 40% and that of

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ACCESSION NR: AP5007098

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Bi-Ag-Ce or Ag-O-Ce, by 20%. These changes are reversible, but the inertia period amounts to dozens of hours. The surface conductance of the phototube glass envelope also depends on illumination. The variation of the spectral sensitivity of a phototube is more pronounced at low (-180C) temperatures. It is recommended that phototubes be kept in darkness for a day or two prior to their use in photometric work. Orig. art. has: 5 figures, 2 formulas, and 4 tables. [03]

ASSOCIATION: none

SUBMITTED: 03Feb64 ENCL: 00 SUB CODE: EC, OP

NO REF SOV: 001 OTHER: 004 ATD PRESS: 3222

me
Card 2/2

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ACCESSION NR: AP3000569 S/0109/63/008/005/0861/0867

AUTHOR: Mostovskiy, A. A.; Vorob'yeva, O. B.; Privalova, V. Ye.; Mayskaya, K. A.

TITLE: Some causes of complex photocathode fatigue [Report presented to the Tenth Conference on Cathode Electronics, Tashkent, November 1961]

SOURCE: Radiotekhnika i elektronika, v. 8, no. 5, 1963, 861-867

TOPIC TAGS: complex photocathode fatigue, cathode layer, light absorption, photocell, photoemission, electron bombardment, illumination effect

ABSTRACT: Antimony-cesium, bismuth-silver-cesium, silver-oxygen-cesium, and multialkali photocathodes have been investigated in order to determine those processes occurring in the cathode layer as a result of light absorption and those external to the photocathode taking place in the photocell, which are the main causes of fatigue in a complex photocathode. Studies have been made of 1) the effect of illumination (without photocurrent pickup) on the cathode photoelectric and semiconductor properties, 2) the effect on photoemission of a variation in the composition of residual gases as a result of electron bombardment of the internal surfaces of the photocell, and 3) the redistribution

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ACCESSION NR: AP3000569

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of alkali metals during photocell operation. The main cause of photocathode fatigue was found to be in the variation of the gaseous medium due to gas evolvement from surfaces subjected to electron bombardment and by the simultaneous redistribution of alkali metals between the photolayer and its adjacent environment rather than to a change in the state of photocathode surface due to field and illumination effects. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: none

SUBMITTED:	19Mar62	DATE ACQ:	30May63	ENCL:	00
SUB CODE:	SD	NO REF SOV:	009	OTHER:	004

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Card 2/2

MALAKOV, Fedor Fedorovich; PRITYKINA, L.A., red.; KISINA, Ye.I.,
tekhn.red.

[Fundamentals of safety techniques and fire prevention measures in the food industry] Osnovy tekhniki bezopasnosti i protivopozharnoi tekhniki v pishchevoi promyshlennosti. Moskva, Pishchepromizdat, 1960. 447 p. (MIRA 13:5)
(Food industry--Safety measures)

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V.V.; PRIVALOVSKAYA, G.A.; PULYARKIN, V.A.; RYAZANTSEV, S.N.;
FREYKIN, Z.G.; KHOREV, B.S.

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(Matveev, Gennadii Petrovich, 1926-1962)

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[The Volga-Vyatka Region; economic and geographical features] Volgo-Viatskii raion; ekonomiko-geograficheskaia kharakteristika. Moskva, Gos. izd-vo geogr. lit-ry, 1961. 533 p. (MIRA 15:2)

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(Volga Valley--Economic geography)
(Vyatka Valley--Economic geography)

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